

REMARKS

Claims 1 - 23 remain active in this application. Claim 1 has been amended. Support for the amendments of the claims is found throughout the application, particularly in Figure 2 and the description thereof on pages 11 - 13. No new matter has been introduced into the application.

Claims 1, 7 - 11, 13 - 18 and 22 have been rejected under 35 U.S.C. §103 as being unpatentable over Ritter in view of Citta (both newly cited). Claims 2, 4 - 5, 12 and 23 have been rejected under 35 U.S.C. §103 as being unpatentable over Ritter in view of Citta and Sullivan. Claim 3 has been rejected under 35 U.S.C. §103 as being unpatentable over Ritter in view of Citta, Sullivan and Ortel. Claim 6 has been rejected under 35 U.S.C. §103 as being unpatentable over Ritter in view of Citta and LoGalbo et al. Claims 19 - 21 have been rejected under 35 U.S.C. §103 as being unpatentable over Ritter in view of Citta and Ortel. All of these grounds of rejection are respectfully traversed, particularly as being moot in view of the amendment to claim 1 made above.

As previously pointed out, the invention is an arrangement for upstream signaling over a cable communication system to indicate conditions at each of a large plurality of cable drops connected to a central facility. The system in accordance with the invention provides time-multiplexing of inputs from all cable drops *cyclically without polling of the respective cable drops* while achieving very wide operational margins. The wide operational margins while monitoring a large number of cable drops in an acceptably short period of time is largely achieved through avoidance of any need for allocation of downstream signaling bandwidth for interrogating subscriber units or termination sections. In other words, the invention is

distinct from any interrogator-responder system in that it is self-scanning or self-polling and avoids any need for the termination sections of the cable system to be interrogated in order to obtain condition information associated with a particular cable drop. Moreover, the preferred embodiment of the invention minimizes communications while providing information redundancy through which the identity of particular cable drops can be identified when a monitored condition is reported through transmission of an identification code which is redundant over the particular time slot assigned to a particular cable drop.

The distinctive self-polling or self-scanning feature of the invention is supported by the provision of an independent time base at system termination sections which is responsive to a broadcast time signal which generates respective time slots and determines which time slots, so generated, correspond to particular termination sections or subscriber units. Thus, a termination section or subscriber unit will transmit an upstream signal only during a particular cyclically recurring time slot *but will do so autonomously and without downstream signaling for interrogation or synchronization*. These time slots are also identified and synchronously but independently generated by a similar time base responsive to a broadcast time signal at the central facility of the cable system where any upstream signals can be captured during respective time slots which are approximately synchronized with the time slots independently generated at the time bases at the respective termination sections. Since the time bases are synchronized but function independently, there is no need for any interrogation signal or even any synchronization signal to be transmitted downstream to control polling/scanning of the subscriber units or termination sections.

Ritter, in sharp contrast to the invention, as claimed, is an interrogator-responder system for determining the channel to which respective television sets are tuned (see Abstract) and while Ritter has some similarities to some aspects and details of the present invention it clearly relies upon downstream signaling for resetting and synchronization of the timers at the cable drops with the clock at the "Command Console Interrogative Unit" 100 (Figure 1). See, for example, the discussion of generation and transmission of a "command signal" mixed with the television signals at column 2, line 74 to column 3, line 46, and the reception and responsiveness of the subscriber units thereto at column 6, lines 13 - 28, and column 7, line 73, through column 8, line 34, especially reference to countdown counters 101 and 301 which are clearly a portion of the interrogation system of Ritter. Therefore, any structure of Ritter which is remotely readable on the time base at the termination section of the system *is necessarily (and explicitly disclosed to be) entirely dependent on the time base at the central facility* and not independent thereof as recited in claim 18 as finally rejected and claim 1 as now amended. The Examiner's statement of the rejection is completely silent as to this feature of the present invention and thus does not make a *prima facie* demonstration of obviousness of at least claim 18 or any claim depending therefrom. Similarly, Ritter teaches the converse of the subject matter recited in claim 1 in that time slots generated at termination sections correspond to time slots generated at the central facility rather than the time slots at the central facility corresponding to the time slots generated at the termination sections, as claimed. Therefore, the Examiner has not made a *prima facie* demonstration of obviousness in regard to any of claims 1 - 17. Other significant differences of Ritter from

the claimed subject matter include use of an RF carrier rather than a lower frequency signal outside the CATV system frequency band and the fact that, since Ritter detects the tuned frequency by comparison with a stepped local oscillator frequency, information is conveyed by "elapsed time between the time reference pulse and the signal pulse" (column 6, lines 60 - 62) which *requires* close synchronization of the time base at the subscriber units to the time base at the central facility. The Examiner fails to discuss these issues, as well.

The significant deficiencies of Ritter in regard to these distinctive features of the invention are not mitigated in any way by the secondary references applied by the Examiner and it does not appear that the Examiner asserts that they do. Citta is cited by the Examiner for teaching a time base at the central facility but which is not asserted by the Examiner to be independent of the time base at the termination section(s). Moreover, Citta is also clearly an interrogator-responder system relying on downstream signaling. Specifically, as explicitly disclosed in the Abstract and elsewhere in Citta, coded data is transmitted from the central facility in a designated vertical blanking interval line and compared with data stored at a subscriber unit to determine a match for interrogation of a particular subscriber unit. When a match is found an interrogation occurs, a microprocessor is interrupted and the next video field is divided into eight time slots; any one of which can be used for transmission of an upstream signal packet (see Abstract). Thus, Citta also differs significantly from the claimed subject matter and cannot mitigate the deficiencies of Ritter since the time slots generated do not correspond to particular cable drops. Thus, Citta is seen to be substantially irrelevant to the present invention, as claimed.

The remaining applied references to Sullivan, Ortel and LoGalbo have been previously discussed, for example, in the response filed August 12, 2005, which is hereby fully incorporated by reference. Sullivan is also an interrogator-responder system in which the development of time slots would have no utility, much less the development thereof by *independent* time bases. LoGalbo et al. is also an interrogator-responder system and while it teaches close synchronization of two geographically separated clocks using a GPS signal for measurement and collection of data regarding signal propagation time between those locations but does not generate time slots, particularly associated with particular respective remote locations and which would have no utility in the system of LoGalbo et al. Further, LoGalbo et al. does not lead to any expectation of success in deriving a self-polling or self-scanning function through such synchronization and such a function would have no utility therein. Ortel is cited by the Examiner only for teaching the inclusion of a printer and the Examiner does not assert that it otherwise mitigates any deficiency of any other reference or any combination thereof.

Accordingly, it is clear that the Examiner has effectively ignored salient features of the invention explicitly recited in the claims and has failed to make a *prima facie* demonstration of obviousness of any of at least claims 18 - 23 and that the stated grounds of rejection are in error in regard to claims 1 - 17 as rejected and clearly untenable in regard to claim 1, as now amended and claims 2 - 17, depending therefrom. Clearly, the Examiner's continued reliance on interrogator-responder systems is improper and is also indicative of a lack of understanding of the meritorious effects of the invention (such as autonomous self-scanning or self-polling and the avoidance of downstream signaling for interrogation or

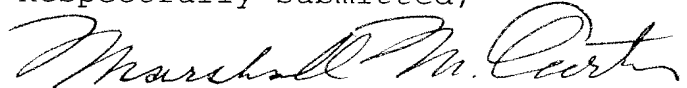
synchronization) resulting in insufficient consideration having been given to the recitations of the claims which support such meritorious effects. Therefore, reconsideration and withdrawal of the stated grounds of rejection are respectfully requested.

Although moot in view of the Request for continued Examination concurrently filed herewith, it is also respectfully submitted that the finality of the present office action is premature. No action can properly be made final without making a *prima facie* demonstration of the propriety of all grounds of rejection contained therein which the Examiner clearly failed to do in regard to claims 18 - 23 which clearly recite the independent definition of time slots at the central facility and termination sections of the system or claims 1 - 17, as rejected, which recite the correspondence of time slots generated at the central facility corresponding to the time slots defined at termination sections. By the same token, the new citation of Ritter and Citta was clearly *not* necessitated by the amendatory language of claim 1 presented August 12, 2005, since these references clearly fail to answer it but teach the converse and then in the context of an interrogator-responder system which was previously argued and evidently found persuasive as indicated by the withdrawal of Sullivan as the principal reference against the claims.

Since all rejections, objections and requirements contained in the outstanding official action have been fully answered and shown to be in error and/or inapplicable to the present claims, it is respectfully submitted that reconsideration is now in order under the provisions of 37 C.F.R. §1.111(b) and such reconsideration is respectfully requested. Upon reconsideration, it is also respectfully submitted that this application is in condition for allowance and such action is therefore respectfully requested.

A petition for a three month extension of time has been made above. If any further extension of time is required for this response and the concurrently filed Request for Continued Examination to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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